

ABSTRACT

A method of ligating two or more molecules, for example, peptides to peptides or peptides to labels is provided. The method may comprise the steps: a) providing a first oligopeptide having a reactive moiety, which is a hydrazine moiety, a hydrazide moiety or an amino-óxy moiety b) providing a second oligopeptide having an activated ester moiety, c) allowing the reactive moiety of the first oligopeptide to react with the activated ester moiety of the second oligopeptide to form an oligopeptide product, in which the first and second oligopeptides are linked via a linking moiety having Formula I, II or III. The second oligopeptide may preferably be generated by thiol reagent induced cleavage of an intein fusion protein. The invention further provides labelling and ligation methods in which protein hydrazides are ligated by reaction of the hydrazide moiety with an aldehyde functionality or a ketone functionality.